



Homeland Security Infrastructure Program Overview

21 November 2003

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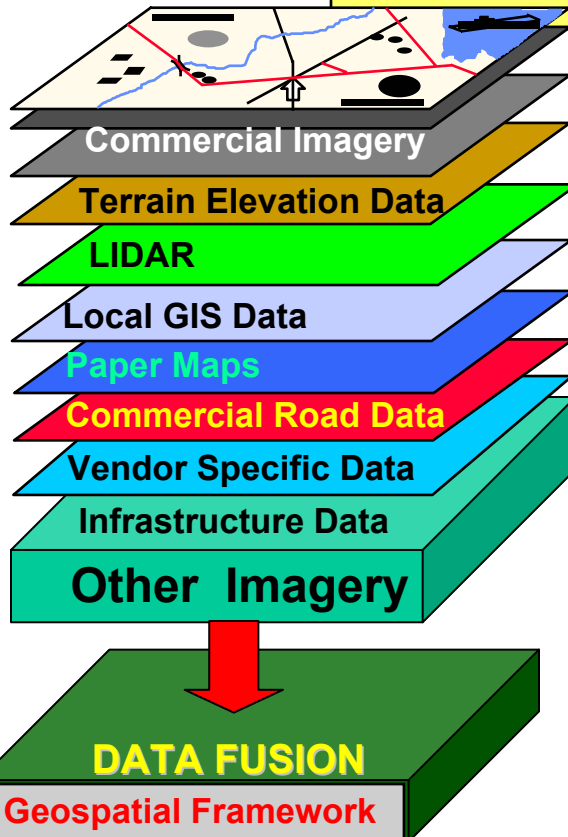
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Homeland Security Infrastructure Program

NIMA's
Concept

***A single, integrated domestic infrastructure
database for federal use –
USGS and NIMA Joint Effort
MAY – JUNE 2002***



**Nunn-Lugar-Domenici priority cities with
additions to 133 UAs'**

- Critical infrastructures
- Land borders and seaports of entry/exit

**Analysis &
Tailored
production**

- Situational awareness / Common Operational Picture (COP)
- Crisis response & recovery

**DATA
BROKER**

- Data integration and broker services for customers



Homeland Security Infrastructure Program (HSIP)

- **Geared to Federal “readiness, response, and recovery” (R³)**
 - **Requirements expressed by a Federal authority**
 - Intelligence oversight restricts areas for which NIMA collects data.
- **Assist in development of geospatial data for homeland security efforts**

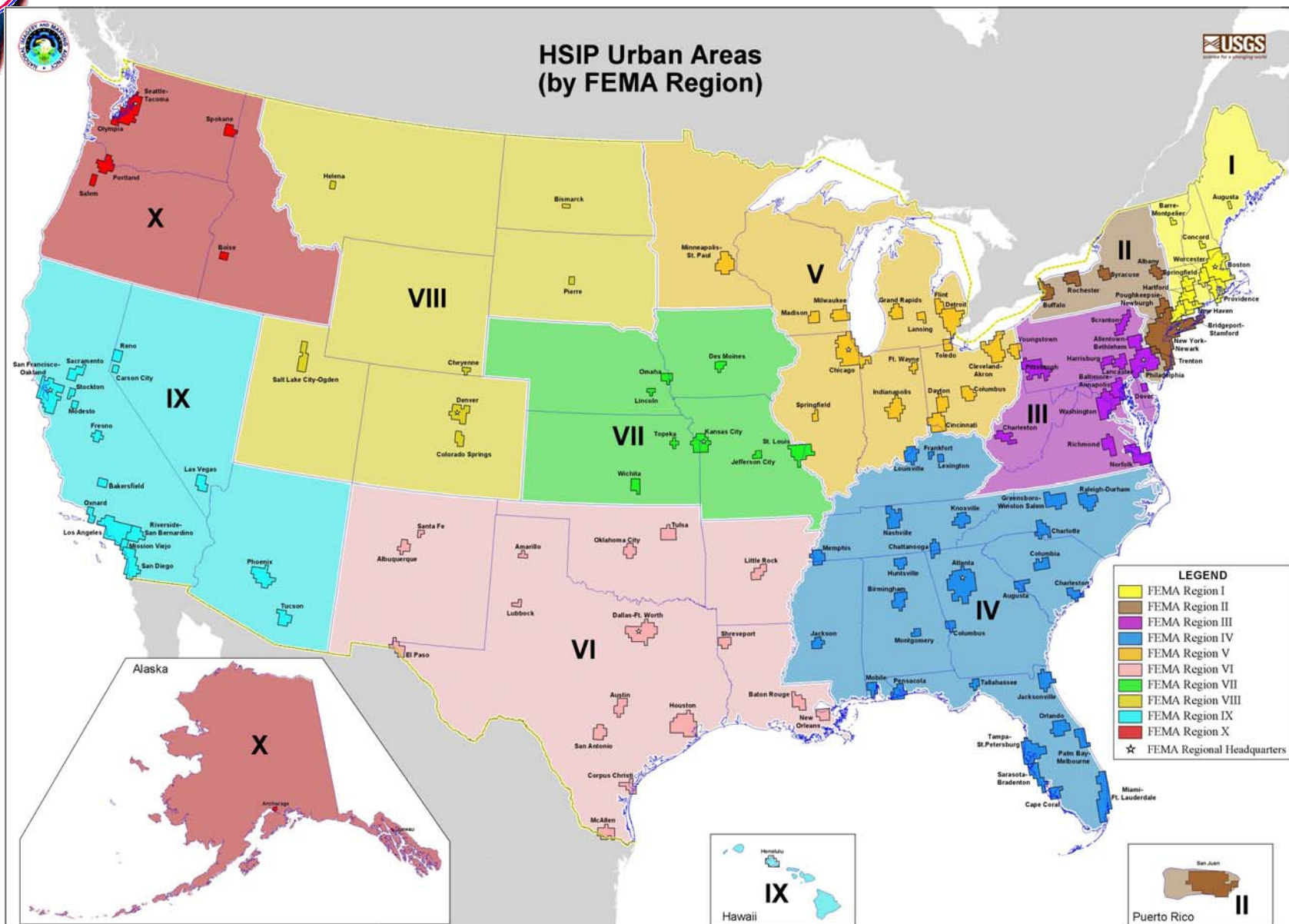


Homeland Security Infrastructure Program

- **Defines two areas of geographic interest**
 - Urban areas (“footprints”)—more detailed level of National Minimum Essential Datasets (MEDS)
 - National
- **Outlines data content for each theme of critical infrastructure**
 - Used lists from Federal responders in Defense Department and other communities, and added Federal directives on homeland security (such as PDD 63 on critical infrastructure protection)
 - Drafted content for Urban and National MEDS
 - Basic description pattern: Feature header (metadata), location, contact, and limited feature-specific information



Homeland Security – “133 Cities”





HSIP Minimum Essential Data Sets

HSIP MEDS consists of an Imagery Base, Elevation, and Vector Data Layers

- **Urban Area Imagery**
 - 1 m or better resolution
 - 2 year currency desirable
- **Urban Area Elevation Data**
 - 1 m over urban core or Key Areas
 - 30 m or better data over remainder
- **Nation-Wide Infrastructure Layers**
 - Information & Communications
 - Banking, Finance, & Insurance
 - Water Supply
 - Transportation
 - Emergency Services
 - Energy
 - Emergency / Law Enforcement
 - Public Health
 - Special Functions (DOD/IC)
 - High Value/Symbolic Targets - National Symbols
 - Food Industry
 - Agriculture & Livestock
 - Chemical Manufacturing
 - Commercial & Retail

HSIP/Critical Infrastructure Sectors

- Information & Communications
- Banking, Finance, & Insurance
- Water Supply
- Emergency Services / COG
- Energy
- Emergency/Law Enforcement
- Public Health
- Special Functions
- Important Industries
- High Value/Symbolic Targets



The National Map

- Elevation
- Imagery
- Land Cover
- Structures
- Hydrography
- Transportation
- Boundaries
- Geographic Names





Information Content

The National Map

- Elevation data, 30-meter or finer
- Land Cover
- Hydrography
- Geographic Names

National MEDS

- Information & Communications
- Banking, Finance, & Insurance
- Water Supply
- Transportation
- Emergency Services / COG
- Energy
- Emergency/Law Enforcement
- Public Health
- Special Functions
- Important Industries
- High Value/Symbolic Targets
- Other boundaries

HSIP Infrastructure Sectors

- Orthoimagery, 1-meter or finer
- Transportation
- Structures
- Boundary Data

Urban MEDS (detailed)

- TV & Radio Broadcast
- Financial Institutions
- Public Water Supply Intakes
- Airports and Airfields
- Emergency Management
- Power Plants & Substations
- State Police Offices
- Primary Care Facilities
- Government Installations
- Hazardous Material Facilities
- Landmark Structures



Community Comment Summary

- **50 separate sets of comments**
 - **HIFLD**
 - DOD Agencies/Services
 - DTRA, JFCOM, NAVFAC, USACE, USAF, USGS, & NIMA
 - Corporations
 - **Other Federal Agencies**
 - FGDC HSWG component agencies
 - **States**
 - HI, ID, IN, KS, LA, MD, MN, MO, NE, NJ, NY, PA, RI, OH, TN, UT, VT, VA, & WA
 - **Counties & Urban Areas**
 - CO Springs CO, Baltimore & Frederick Counties MD, Lincoln, NE, New York NY
 - **Associations**
 - NSGIC, ICMA
- **USGS/NIMA Revisions projected for Feb '04**



HSIP Urban Areas-Review Determinations

- **Selection**
 - No change in the selection of the “133” Urban Areas
- **Prioritization Methodology**
 - No change in methodology.
 - Relative ranking, not the absolute score, is the basis for priority.
 - Will update the rankings based on corrections to the scoring parameters (for example— in the Harrisburg, PA, area, add points for the nuclear facility)
- **Footprints**
 - Minor adjustments based on comments.
 - When planning work, willing to negotiate additional changes.
- **Note that interest by a Federal Authority may alter the priorities or add “new” cities to NIMA and USGS activities.**



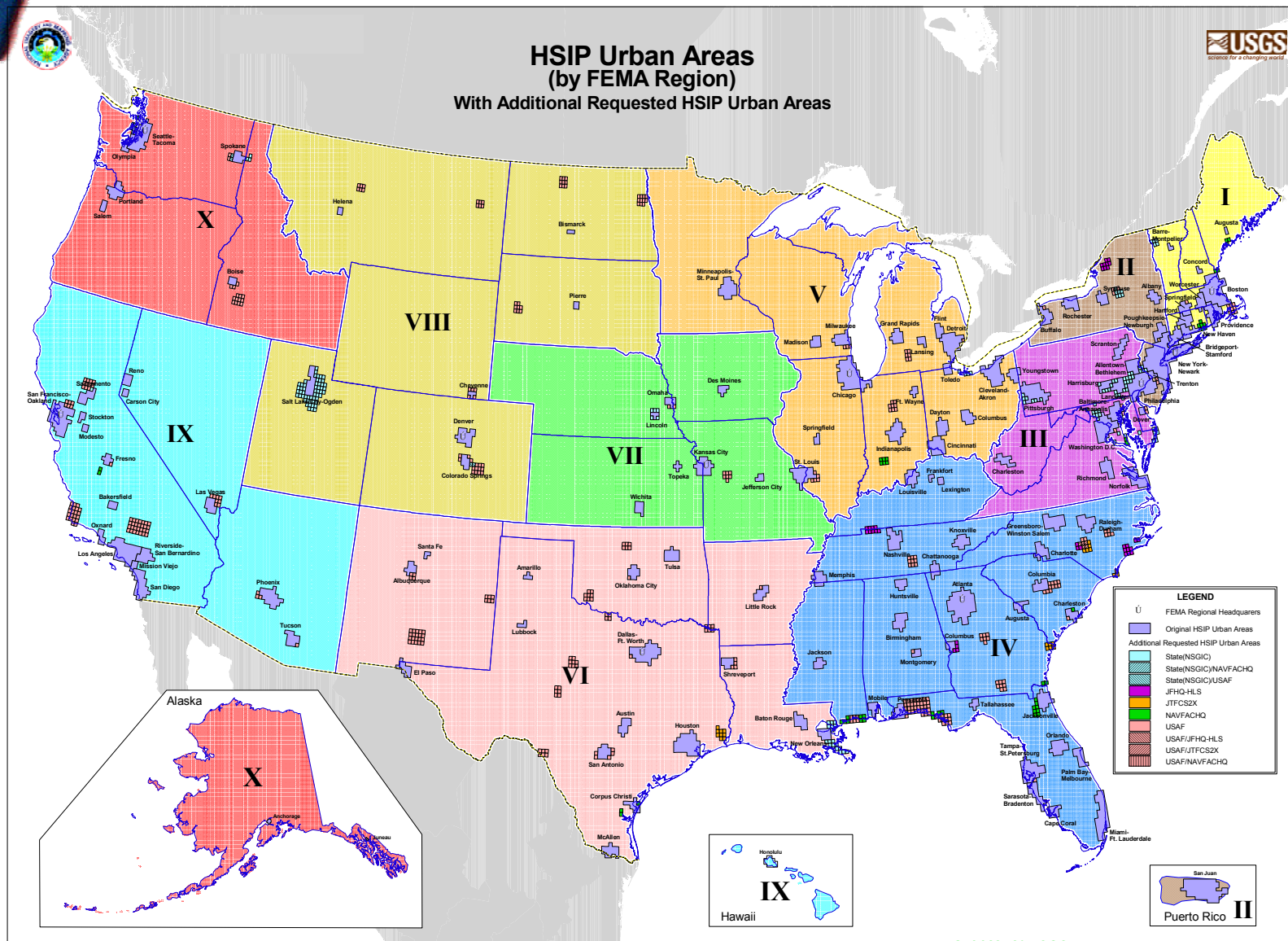
HSIP Feature Attributes

Review Summary

- **Significant reorganization of Feature Attribute Table information**
 - **Content grouped into:**
 - Header (unique identifiers, security information, etc.)
 - Contact information for feature (name, phone number, etc.)
 - Location information for feature (street address, etc.)
 - Feature-specific attributes
- **Little information content change**
 - **Timeline**
 - Drafted through joint NIMA – USGS effort May-June 2002
 - Released draft for comment September 2002
 - Version 2, to incorporate comments received thus far, anticipated January-February 2004



Comments on HSIP Urban Area Extents





Current Urban Area Activities (Imagery)

Phase I—(FY02-FY03)

- **Imagery collection “46 cities”**
 - **33 cities complete and available**
 - Being delivered to NIMA and available to others from USGS
 - **13 cities flown and being orthorectified**
 - Final city expected to be complete and available Oct 31, 2003
 - **Of 46 cities, 9 acquired in partnership with state/local jurisdiction**





Current Urban Area Activities (Imagery)

Phase II—(FY03-FY04)

- **Imagery collection of “prioritized” urban areas**
 - **25 urban areas to be acquired in partnership**
 - Leveraging of existing resources
 - 4 partnerships for new collection in FY04
 - Licensing/use restrictions may apply
 - **10 urban areas to be acquired through federal contracting**
 - All to be made publicly available
 - Expected final completion fall 2004
 - **Will be negotiating per license/use restrictions**
 - License will, at minimum, allow for use across Federal, State, and Local communities for homeland security; may also allow for public viewing
 - Public domain release is a possibility, especially after an initial period of restricted access



Current Urban Area Activities (Vector Commodity Data)

Phase II—(FY03-FY04)

- **Commodity data purchase w/private sector**
 - **PLATTS PowerMAP**
 - Limited Use License (20 Agencies, NTE 1000 users total)
 - **Dun & Bradstreet**
 - ~18 Million Business Points Dataset
 - Federal Use License
 - **TGS Pinpointer Dataset**
 - Refined Manufacturing Data Locations
 - Federal Use License
 - **Explore**
 - Firestation Data
 - Detailed Data on locations of ~ 47,000 Firestations
 - Police Station Database (~ 6 Month Delivery)
 - Federal Use Licenses
 - **IONIC/MCH**
 - Emergency Services Database (~1-2 Month Delivery)

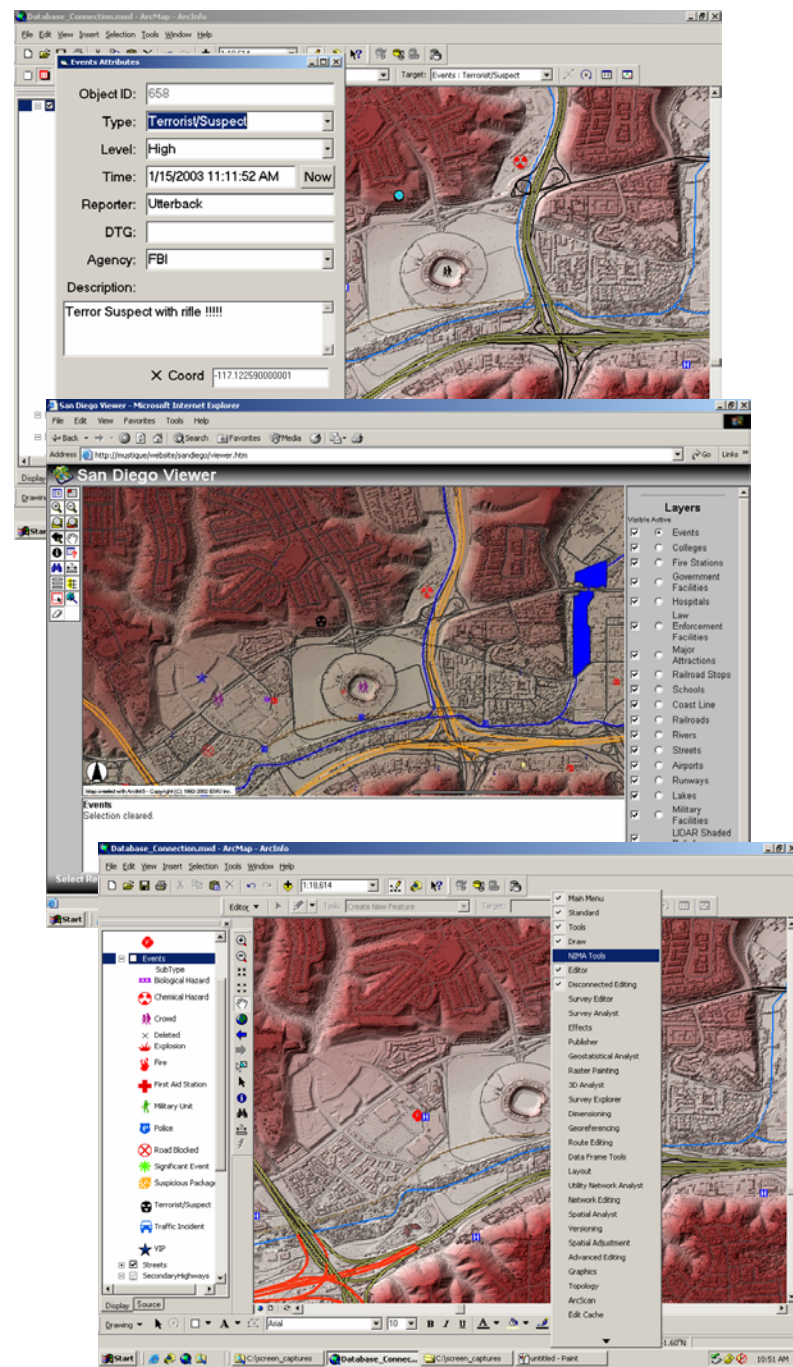


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- **Common Operation Picture for SSE, exercises, and crisis operations**
 - Access to real-time data in an analytical spatial environment...*Not just a pretty picture*
- **Web-enabled access to integrated urban and critical infrastructure**
 - Virtual Analytic Environments
- **National Site...critical infrastructure data and critical asset information**
 - Classified Data currently online,
 - Unclassified - Soon
- Supports “thin” and “thick” client usage

Ten cities available
...National CI Site available
Limited Datalayers – HSIP Data Content
More to Come...
All Three Security Levels



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Constraints – Imagery Acquisitions

- **Wanted a narrow focus to ensure success**
- **Partnerships take time**
 - “Instant” partnering difficult
 - Quick results needed
- **Resources**
 - Amount (not enough people or funds)
 - Wrong types (resources may be not in a useful form; for example)
 - Timing (resources show up late)
 - Limitations
 - Resources may come with constraints
 - Intellectual property, licensing, and other concerns
 - Alignment (partners’ needs may not match)



Constraints – Vector Commodity Data

- **NIMA is under Executive Order 12333 Limits**
 - **Intelligence Oversight**
 - Precludes collection and retention of information on Persons of the United States.
 - Companies are People to!
 - **Distribution**
 - Pending Office of General Council & Policy Review of Recent Data Acquisitions.



Questions ?

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